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NEW YORK, NY 10104-3800

EXAMINER
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ZHU, RICHARD Z

ART UNIT	PAPER NUMBER
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2625

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08/03/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/765,885

**Applicant(s)**

SUZUKI, NOBUKAZU

**Examiner**

RICHARD ZHU

**Art Unit**

2625

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 June 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,5,6 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6 and 15-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-945)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Acknowledgement***

1. Acknowledgement is made of applicant's appeal brief made on 06/28/2011. Applicant's submission filed has been entered and made of record.

### ***Status of the Claims***

2. Claims 1-2, 5-6, and 15-18 are pending.

### ***Response to Applicant's Arguments***

3. **In response to** "However, the rotation and/or flipping of each image in Robar et al. merely refers to re-orienting a portrait image to a corrected portrait image. In particular, Robar et al. discloses that when the image of Fig. 7A is a properly oriented image, scanned images that appear as Figs. 7B and 7D are flipped vertically and horizontally, respectively. Meanwhile, a scanned image that appears as Fig. 7C is rotated by 180 degrees. *See* Col. 6, line 66 through Col. 7, line 9. As such, Robar et al. merely discloses the reading of film originals in a portrait orientation, but cannot be understood to disclose or suggest reading film originals placed on an original support in a mixed manner with a landscape orientation and a portrait orientation".

However, Fig 8 and Col 9, Rows 35-45 of **Robar** discloses a single set of films having films in a landscape orientation and a portrait orientation. A film cassette comprising such films will be read in a mixed manner with a landscape orientation and a portrait orientation.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 5-6, and 15-18 are under 35 USC 103 (a) over **Robar et al. (US 6826313 B2)** in view of **Yoshida (US 6178005 B1)** and **Anderson (US 6563535 B1)** as well as **Parulski et al. (US 5414811 A)** and knowledge well known in the art.

**Regarding the system of Claim 15 and therefore method of Claim 1, Robar** discloses a system for reading a plurality of film originals (**Fig 2**), which are placed on an original support of an image reading apparatus (**Fig 2, Flat bed scanner 20 and see Col 6, Rows 7-10, original support being bed of the flatbed scanner**) in a plurality of orientations (**Fig 8**) and for displaying the plurality of film originals on a monitor of a computer connected to the image reading apparatus (**Fig 2, Computer 22 is connected to Flatbed Scanner 20 and has a monitor, images are displayed according to Fig 6**), the system comprising:

an image reader (**Fig 2, Scanner 20**) for

(i) reading each of the plurality of film originals placed on the original support (**Col 6, Rows 1-16, scanning multiple films simultaneously**) in a mixed manner with a landscape orientation and a portrait orientation (**Fig 8 and see Col 9, Rows 35-39**),

(ii) identifying a number of frames of film originals simultaneously present on the original support (**Col 6, Rows 10-20, computer analyses the scanned films to separate and orient them properly**), and

(iii) for cutting out image areas for each of the frames of film originals to generate a plurality of image signals (**Col 6, Rows 20-30, if scanned image includes multiple distinct films, then the computer employs edge detection algorithm to extract individual images**);

a placement orientation detector for detecting placement orientation for each of the plurality of film original based on edge information of each image signal generated by said image reader (**Col 6, Rows 17-65, software in computer 22 determines the respective orientations of the scanned films by determining edges of respective films in vertical and horizontal positions to extract image areas comprising each of the films**) corresponding to each film original (**Col 6, Rows 27-28, "separately processed"**);

inherently, a display orientation setting unit for setting a display orientation for the plurality of image signals (**Fig 2, Computer 22, every computer necessarily has some kind of input device such as keyboard and/or mouse to allow a user to interface with the computer so as to set the proper orientation for all images as shown in Fig 7A**);

an image signal rotator for rotating the image signal (Fig 7 and see Col 6, Row 66 – Col 7, Row 8, software in the computer rotates image signal to properly orientations);

a read image signal display for displaying the plurality of read image signals on one display screen of the monitor unit (Fig 6 and see Col 6, Rows 10-12, computer 22 as depicted has a monitor and images are displayed according to Fig 6. Obviously if not inherently, the monitor displays the image in accordance to Fig 6).

*Robar* does not disclose:

placement orientation detection is perform base on lengths in horizontal and vertical directions of the image signal generated.

*Yoshida* discloses a system comprising:

an image reader for reading each of the images of the originals placed on the original support to generate image signals (Fig 1 and see Col 3, Rows 28-34, reading circuit 10);

a placement orientation detector for detecting placement orientation of the original as to whether it is landscape or portrait (Col 5, Rows 6-15, a control circuit 36 incorporating a control program to manage the overall operations of the system to include determining whether received image signal is landscape or portrait; see for example Fig 5, S70 and S82), based on lengths in horizontal and vertical directions of the image signal generated by said image reader (Col 5, Rows 39-44 and see for examples Col 6, Rows 17-22 and Rows 64-67, a check to determine size and orientation of the image on the basis of the image signal as described by main scan length and sub-scanning length);

an image signal rotator for rotating the image signal to be in a landscape placement (Col 5, Rows 6-15, a control circuit 36 and see Fig 1, Length to Width

**Conversion Circuit 30, Col 4, Rows 10-18. To rotate an image by 90°), when the placement orientation of the original detected by said placement orientation detector is different from the landscape placement (Fig 9, S212 and S214, when it is detected that placement orientation is portrait instead of landscape, S226, the image is length to width converted or rotated by 90° and rotated into landscape placement. See Col 1, Rows 32-35).**

It would've been obvious to one of ordinary skill in the art at the time of the invention to modify the computer 22 of *Robar* to perform orientation and rotation such that landscape placement of film images are always generated and displayed in order to provide an image processing apparatus having improved ease of operation (*Yoshida*, Col 2, Rows 10-12) because it provides a standardized format of orientation placement that is automatically and conveniently reproduced. Further, *Yoshida* suggests that the step of placement orientation and rotation can be perform in a facsimile machine or image reader, it therefore suggest an obvious and predictable arrangement in which image reader can generate the signal in landscape and thereafter transmit it to an external apparatus such as computer 22.

The above modification does not suggest that the image is display in thumbnail format and the manner of setting the orientations and execution of orienting the images in accordance to the setting.

*Anderson* discloses an image capturing apparatus for processing a plurality of images in different orientations (Col 3, Rows 60-67, in the case of a camera, image rotation is caused by the rotation of the camera when it captured the image. In the case of a scanner, image rotation would be due to placement of the image on the scanner at the

**time of its capture**), the apparatus comprises a processor and a display (**Col 5, Rows 24-26, in the case of a scanner, an architecture similar to *Robar* is obvious**) as well as a display orientation setting unit for setting a display orientation for all of the plurality of image signals (**Col 4, Rows 48-52 in view of Col 6, Rows 50-55, IO interface for controlling various functions such as rotations in display modes**), by one setting (**Col 14, Rows 50-60, various functions include setting display modes such as live view mode or capture mode where orientation is always in landscape mode**), from among:

(i) a landscape orientation (**Col 7, Rows 25-35 in view of Col 7, Row 13, displaying in horizontal / landscape orientation**),

(ii) an orientation corresponding to the placement orientation for each of the plurality of film originals detected by said placement orientation detector (**Col 8, Rows 15-35, displaying an image in its original orientation by resizing it to fit the display**);

an image signal rotator (**Col 4, Rows 45-55, CPU 110**) for executing in accordance with the display orientation set for the plurality of image signals by said display orientation setting unit:

(i) a first image signal rotation of each of the plurality of image signals to be in the landscape orientation (**Col 7, Rows 25-35 in view of Col 7, Row 13**);

(ii) no image signal rotation (**Col 8, Rows 15-35, displaying a portrait oriented captured image without rotation by resizing it to fit the display**);

displaying the images in a thumbnail format (**Col 15, Rows 55-60**);

It would've been obvious to one of ordinary skill in the art at the time of the invention to modify *Robar* in accordance to the image rotation method of *Anderson* in order to provide



automatic processing and correct display of captured images regardless of the orientation the images were originally captured in (*Anderson*, Col 6, Rows 19-25). When applying *Anderson*'s teaching on a scanner system like *Robar* (*Anderson*, Col 3, Rows 66-67), the process becomes simplified as the scanner and therefore its display's orientation is fixed and attention should be focus on the varying orientation of the images that is dependent upon its placement.

Although the combination does not suggest films are mounted on a mount, in light of applicant's admission that it is well known for a film slide to be mounted on a mount on a scanner (**Page 2, 1<sup>st</sup> paragraph of applicant specification**), the examiner is taking official notice of the fact that film mounts are well known and therefore one of ordinary skill in the art would've employed it when simultaneously scanning a plurality of films on a scanner bed.

Lastly, although *Robar* does not dictate simultaneously displaying plurality of image signals, however, it predictable teaches the feature and thus the feature is obvious in view of *Robar* as asserted by the examiner in the office action mailed on 10/14/2010.

Further, *Parulski* discloses an image processing system for displaying digitized images on a screen (**Abstract and see Fig 1, Work Station**) wherein a film scanner reads a plurality of film originals (**Fig 2**) and simultaneously displaying the plurality of image signals representing the film originals on one display screen in landscape displacement (**Figs 6-7**).

In addition, it has an image rotation step comprising setting an orientation where each of the plurality of image signals is rotated by a predetermined angle regardless of the placement orientation for each of the plurality of film originals (**Col 9, Rows 35-50 and see**

**Fig 4, using Rotate Button 220 to rotate image by a predetermined angle regardless of its placement orientation detected by the computer)** detected by a placement orientation detector (Col 6, Rows 45-50), and a image signal rotation of rotating each of the plurality of image signals by a predetermined angle irrespective of the placement orientation detected by said placement orientation detector (**Fig 4, Rotate Button 220**).

One of ordinary skill in the art at the time of the invention would've been motivated to modify *Robar* to display either purely digital representation of the plurality of film originals (**Fig 6**) or dosage data that is derived thereof in the format as taught by *Parulski* because it gives an operator the flexibility to demand a monitor to display said films in a format most desired by said operator.

**Regarding Claim 2, *Robar*** discloses a further orientation setting step of selecting a predetermined orientation as the display orientation for the plurality of image signals (**Fig 7A, setting orientation of a reference film image as reference orientation upon which all other film images shall be rotated by predetermined angles in order to have the same orientation as the reference film image**), said image signal rotation step may further execute an image signal rotation of rotating each of the plurality of the image signals to be in the predetermined orientation, in accordance with the display orientation set in said display orientation step (**Figs 7B-7D**).

**Regarding Claim 5,** a benefit of adopting *Parulski*'s method is that after rotating each of the plurality of the read image signals by the predetermined angle during the image rotation step of *Parulski*, an inclination of each of the plurality of read image signals is corrected with respect to a vertical or horizontal direction (Col 9, Rows 35-40, should an

**automatic orientation be in error, rotation by rotation button 220 has the effect of correcting said error by re-orienting the image into its proper display orientation).**

**Regarding Claim 6**, modification by *Anderson* suggests that after a plurality of originals placed on an original support are read and individually identified by *Robar* (Col 6, Rows 27-28), other steps are performed on an image signal obtained from each of the originals individually (*Anderson*, Col 5, Rows 10-16, **edge enhancement, pixel interpolation, gamma correction etc**).

**Regarding Claims 16-17**, *Robar* discloses wherein the plurality of image signals displayed on the monitor unit are images of the plurality of film originals in dosage representation (Col 7, Rows 53-61)

*Parulski* suggest wherein the plurality of image signals displayed on the monitor unit are images of the plurality of film originals (**Figs 5-8**).

Thus, the combination would predictably result in simultaneously displaying the films as is without DICOMM manipulation according to Fig 6 of *Robar* or with DICOMM manipulation.

**Regarding Claim 18**, *Robar* discloses a method of reading a plurality of originals placed on an original support (Fig 2, Flat bed scanner 20 and see Col 6, Rows 7-10, **original support being bed of the flatbed scanner**) and displaying the plurality of originals (Fig 2, Computer 22 is connected to Flatbed Scanner 20 and has a monitor, **images are displayed according to Fig 6**), comprising:

an image reading step of reading each of the images of the plurality of originals placed on the original support (Col 6, Rows 1-16, **scanning multiple films simultaneously**)

in a mixed manner with a landscape orientation and a portrait orientation (Fig 8 and see Col 9, Rows 35-39), and cutting out image areas to generate a plurality of image signals (Col 6, Rows 20-30, **if scanned image includes multiple distinct films, then the computer employs edge detection algorithm to extract individual images**);

a placement orientation detection step of detecting a placement orientation for each of the plurality of originals (Col 6, Rows 17-65, **software in computer 22 determines the respective orientations of the scanned films by determining edges of respective films in vertical and horizontal positions to extract image areas comprising each of the films**) corresponding to each film original (Col 6, Rows 27-28, **“separately processed”**);

a display orientation setting step of setting a display orientation of all of the plurality of image signals to a landscape display or to a portrait display (Fig 2, **Computer 22, every computer necessarily has some kind of input device such as keyboard and/or mouse to allow a user to interface with the computer so as to set the proper orientation for all images as shown in Fig 7A**);

an image signal rotation step of executing an image signal rotation (Fig 7 and see Col 6, Row 66 – Col 7, Row 8, **software in the computer rotates image signal to properly orientations**); and

a read image signal display for displaying the plurality of read image signals on one display screen of the monitor unit (Fig 6 and see Col 6, Rows 10-12, **computer 22 as depicted has a monitor and images are displayed according to Fig 6. Obviously if not inherently, the monitor displays the image in accordance to Fig 6**).

*Robar* does not disclose:

placement orientation detection is performed based on lengths in horizontal and vertical directions of the image signal generated.

*Yoshida* discloses a system comprising:

an image reader for reading each of the images of the originals placed on the original support to generate image signals (**Fig 1 and see Col 3, Rows 28-34, reading circuit 10**);

a placement orientation detector for detecting placement orientation of the original as to whether it is landscape or portrait (**Col 5, Rows 6-15, a control circuit 36 incorporating a control program to manage the overall operations of the system to include determining whether received image signal is landscape or portrait; see for example Fig 5, S70 and S82**), based on lengths in horizontal and vertical directions of the image signal generated by said image reader (**Col 5, Rows 39-44 and see for examples Col 6, Rows 17-22 and Rows 64-67, a check to determine size and orientation of the image on the basis of the image signal as described by main scan length and sub-scanning length**);

an image signal rotator for rotating the image signal to be in a landscape placement (**Col 5, Rows 6-15, a control circuit 36 and see Fig 1, Length to Width Conversion Circuit 30, Col 4, Rows 10-18. To rotate an image by 90°**), when the placement orientation of the original detected by said placement orientation detector is different from the landscape placement (**Fig 9, S212 and S214, when it is detected that placement orientation is portrait instead of landscape, S226, the image is length to width converted or rotated by 90° and rotated into landscape placement. See Col 1, Rows 32-35**).

It would've been obvious to one of ordinary skill in the art at the time of the invention to modify the computer 22 of *Robar* to perform orientation and rotation such that desired orientation of film images are always generated and displayed in order to provide an image processing apparatus having improved ease of operation (*Yoshida*, Col 2, Rows 10-12) because it provides a standardized format of orientation placement that is automatically and conveniently reproduced. Further, *Yoshida* suggests that the step of placement orientation and rotation can be perform in a facsimile machine or image reader, it therefore suggest an obvious and predictable arrangement in which image reader can generate the signal in landscape and thereafter transmit it to an external apparatus such as computer 22.

The above modification does not suggest that the image is display in thumbnail format and the manner of setting the orientations and execution of orienting the images in accordance to the setting.

*Anderson* discloses an image capturing apparatus for processing a plurality of images in different orientations (Col 3, Rows 60-67, in the case of a camera, image rotation is caused by the rotation of the camera when it captured the image. In the case of a scanner, image rotation would be due to placement of the image on the scanner at the time of its capture), the apparatus comprises a processor and a display (Col 5, Rows 24-26, in the case of a scanner, an architecture similar to *Robar* is obvious) as well as a display orientation setting unit for setting a display orientation for all of the plurality of image signals (Col 4, Rows 48-52 in view of Col 6, Rows 50-55, IO interface for controlling various functions such as rotations in display modes), by one setting (Col 14, Rows 50-60,

**various functions include setting display modes such as live view mode or capture mode where orientation is always in landscape mode), from among:**

(i) a landscape orientation (**Col 7, Rows 25-35 in view of Col 7, Row 13, displaying in horizontal / landscape orientation**),

(ii) an orientation corresponding to the placement orientation for each of the plurality of film originals detected by said placement orientation detector (**Col 8, Rows 15-35, displaying an image in its original orientation by resizing it to fit the display**);

an image signal rotator (**Col 4, Rows 45-55, CPU 110**) for executing in accordance with the display orientation set for the plurality of image signals by said display orientation setting unit:

(i) a first image signal rotation of each of the plurality of image signals to be in the landscape orientation (**Col 7, Rows 25-35 in view of Col 7, Row 13**);

(ii) no image signal rotation (**Col 8, Rows 15-35, displaying a portrait oriented captured image without rotation by resizing it to fit the display**);

displaying the images in a thumbnail format (**Col 15, Rows 55-60**);

It would've been obvious to one of ordinary skill in the art at the time of the invention to modify *Robar* in accordance to the image rotation method of *Anderson* in order to provide automatic processing and correct display of captured images regardless of the orientation the images were originally captured in (*Anderson*, **Col 6, Rows 19-25**). When applying *Anderson's* teaching on a scanner system like *Robar* (*Anderson*, **Col 3, Rows 66-67**), the process becomes simplified as the scanner and therefore its display's orientation is fixed and

attention should be focus on the varying orientation of the images that is dependent upon its placement.

Lastly, although *Robar* does not dictate simultaneously displaying plurality of image signals, however, it predictable teaches the feature and thus the feature is obvious in view of *Robar* as asserted by the examiner in the office action mailed on 10/14/2010.

Further, *Parulski* discloses an image processing system for displaying digitized images on a screen (**Abstract and see Fig 1, Work Station**) wherein a film scanner reads a plurality of film originals (**Fig 2**) and simultaneously displaying the plurality of image signals representing the film originals on one display screen in landscape displacement (**Figs 6-7**).

In addition, it has an image rotation step comprising setting an orientation where each of the plurality of image signals is rotated by a predetermined angle regardless of the placement orientation for each of the plurality of film originals (**Col 9, Rows 35-50 and see Fig 4, using Rotate Button 220 to rotate image by a predetermined angle regardless of its placement orientation detected by the computer**) detected by a placement orientation detector (**Col 6, Rows 45-50**), and a image signal rotation of rotating each of the plurality of image signals by a predetermined angle irrespective of the placement orientation detected by said placement orientation detector (**Fig 4, Rotate Button 220**).

One of ordinary skill in the art at the time of the invention would've been motivated to modify *Robar* to display either purely digital representation of the plurality of film originals (**Fig 6**) or dosage data that is derived thereof in the format as taught by *Parulski*



because it gives an operator the flexibility to demand a monitor to display said films in a format most desired by said operator.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Richard Z. Zhu whose telephone number is 571-270-1587 or examiner's supervisor King Y. Poon whose telephone number is 571-272-7440. Examiner Richard Zhu can normally be reached on Monday through Thursday, 0630 - 1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information

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about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/KING POON/

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